

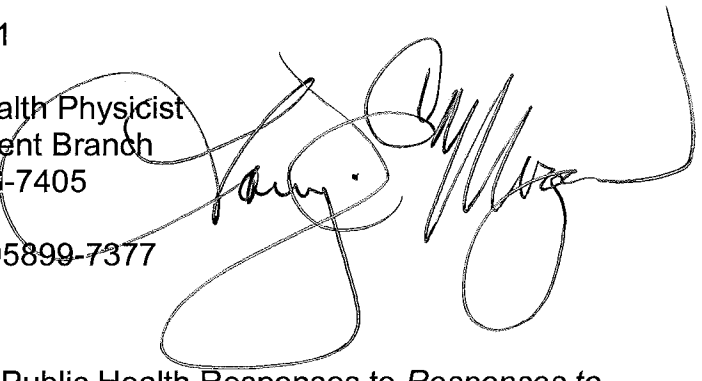


California Department of Public Health **MEMORANDUM**

DATE: December 11, 2012

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SUBJECT: California Department of Public Health Responses to *Responses to Agency Comments on the Draft Historical Radiological Assessment-Supplemental Technical Memorandum Naval Station Treasure Island, San Francisco, California.*

As requested by the California Department of Toxic Substances Control (DTSC), the Environmental Management Branch (EMB) of the California Department of Public Health (CDPH) reviewed the subject document for radiological issues. Attached are comments associated with this review. If you need further assistance please contact Tracy Jue or Matthew Wright of my staff at (916) 324-4804 and (916) 449-5687, respectively.

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California Department of Public Health (CDPH), Environmental Management Branch (EMB) appreciates the opportunity to review and comment on the Department of Navy (DON) response to comments within the *Responses to Agency Comments on the Draft Historical Radiological Assessment-Supplemental Technical Memorandum (DHRA-STM) Naval Station Treasure Island, San Francisco, California, August 6, 2012*.

Response to Department of Navy (DON) Comments

General Comments:

1. EMB requests that the *Draft Historical Radiological Assessment-Supplemental Technical Memorandum (DHRA-STM)* and/or a modified version of the HRA (2006) include a complete listing and investigational information, and times and locations of shipment of all commodities or fragments of commodities or items found to date on Treasure Island. These items have been referred to in documents such as the Site 12 Trench Report of 2004 and *Draft Post Construction Summary report Installation Restoration Site 12 Solid Waste Disposal Areas 1207/1209 and 1231/1233, September 2012*. Other than Site 12 and Building Site 233, where else have remediation activities or other activities located radionuclides?
2. Please provide a history of past soil movement during remediation activities, non-remediation activities, and storage of soil for future use or disposal on or off the TI. Include a parallel accounting of all radiological activities on Yerba Buena Island and Treasure Island.
3. Provide EMB with a copy of all available surface and subsurface drawings, maps, and blueprints that identify current and past locations and routes of sewer and storm lines, drains, manholes, catchments, and outfalls.
4. Specify all locations of potentially contaminated surfaces or routes that have been contaminated with radionuclides and insert those findings in the HRA.
5. The current conceptual site model, pages 37 to 42 of the HRA-STM needs to be revised based on the November 29, 2012 Coordination Meeting that outlined recent DON accommodation of additional sites on TI that are now considered impacted with radionuclides.

Specific Responses to DTSC Comments:

6. DTSC Comment 8, Page 3 of 20 in responses: The work plan for Site 31 indicates that a FSSR will be done for Site 31. The response to this comment indicates that work will

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be documented in a site specific Remedial Action Completion Report (RACR). The Navy has committed to providing a FSSR in their work plan. Is the response saying that the FSSR will be submitted as part of the RACR? Based on a December 7, 2012 Coordination Meeting, the DON indicated that a FSSR will be supplied either through a RACR or a stand-alone FSSR.

7. DTSC Comment 9.2, Item 2 and 4 on Page 5 of 20 in responses: The responses indicate that this HRA-STM expands the footprint perimeters of the existing SWDA's by 50 feet. The HRA-STM needs to explain the basis for this adjustment, and identify information leading to selection of a 50-foot value for the expansion of the footprint for the SWDAs.

8. DTSC Comment 9.2, Item 3 on Page 5 of 20 in responses: The revised last sentence of paragraph 5 in Section 2.2.7, which was revised to read in part, "...potential for the presence for radioactive materials in AOI-7 outside of the SWDAs is minimized because.." Please state the DON's basis for this conclusion.

9. DTSC Comment 9.2, Item 5, Section 4.1.1, *Radiologically Impacted Sites Identified on the HRA*, on Page 5 of 20 in the responses: An examination of the *Draft Remedial Investigation Report for Installation Restoration Site 12, Old Bunker Area, Naval Station Treasure Island, San Francisco, June 2011*, Figure 1-3, Historical Site Features, photograph dated 1968 shows a section labeled, "Historical Burn Area", which is congruent with Soil Area of Interest 1201/1203/1220. Historically, burn pits have been associated with elevated Ra²²⁶ levels; and EMB's conceptual site model for TI indicates the soil for Area of Interest 1201/1203/1220 should be considered potentially impacted. Please include a description of the burn areas and an explanation about the conceptual site model.

10. DTSC Comment 9.2, Item 5, Section 4.1.1.1, Building 233, on Page 6 of 20 in the responses: Reference labeled as Shaw 2012d needs to be added to the references in the HRA-STM.

11. DTSC Comment 9.2, Item 5, Section 4.1.1.5, SWDA A&B, Page 7 of 20 in the responses: The response states that "...low level radiological items containing Ra-226 were found in all of the SWDAs." The term "low level radiological items" is misleading to many people, and that term needs to be replaced with a specific range of the activities of items found. While the items found are not high level radioactive waste as defined by the Nuclear Regulatory Commission (NRC), the levels found in these areas are elevated.

12. DTSC Comment 9.2, Item Section 4.1.2, Radiologically Impacted Sites Identified in this HRA-STM as described on Page 7 of 20 in the responses: It appears that the HRA-

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STM needs to address sanitary sewer and storm drainages from, or passing in the vicinity of, potentially impacted areas; potentially impacted buildings and any related structures. These sanitary sewer and storm drainage systems should be designated as potentially impacted in the HRA-STM including their outfalls.

13. Please include areas now classified as potentially impacted due to their location relative to collection and disposal of ash directly from the incinerator, and due to the incinerator's discharge plume of smoke and ash potentially contaminated with radionuclides.

14. DTSC Comment 10, on Page 8 of 20 in the responses: This indicates that text of the HRA-STM has been modified to address Building 342 and the area between Buildings 342, 343, and 344. However, the response fails to indicate that the HRA-STM has been modified to address the Building 343 and 344 sanitary sewer line.

Specific Responses to CDPH General Comments:

15. CDPH Comment 2, page 10 of 20 in the responses: This response appears to indicate that the Navy has no idea where the larger level Ra-226 sources came from or where these sources could be found on Treasure Island.

16. CDPH Comment #1 indicates that there is no record indicating that the sources found on Treasure Island came from the Golden Gate International Exposition. Some of the sources found so far exceed levels of Ra-226 known to have been used in instruments, or as deck or bridge markers. Based on the responses to CDPH Comments 1 and 2, it appears the DON has no current information regarding the activities that could have utilized these sources and why the highest level Ra-226 sources were disposed on Treasure Island or existing location of contamination. Therefore, the basis for designation of areas impacted by these sources is knowledge of where they have been found to date. So the current conceptual model for the largest Ra-226 sources found is that their location of use and use is unknown, consequently, it is unknown where they could be disposed. Based on available information, all but one of these sources has been found within the SWDAs. Other than where they have been found to date, there is no basis to prematurely eliminate other locations on Treasure Island.

17. The numerous sources that came from the Building 1321 "hot spot" have apparently not been characterized and that characterization information might provide additional information useful for the site conceptual model. Please provide an estimate of the date when that information would be available.

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18. CDPH Comment 3, on page 11 of 20, in responses: The soil samples collected in 2003 from the trenching work have been disposed. As noted previously, CDPH considers any areas with debris or discoloration to be potentially impacted. The previous trenching activity in Site 12 recorded areas with observed debris or discoloration. Therefore, those areas should be identified as potentially impacted in the HRA-STM.

19. CDPH Comment 4, on page 11 of 20: Bullet 2: This indicates outfalls have not been designated as impacted if ongoing investigations warrant such designation. Given that the sanitary sewer lines and storm drains from Building 233 have both been identified as impacted, an investigation of outfalls is warranted. Please include outfalls as potentially impacted.

Bullet 5: Please amend this bullet to include storm drains.

Bullet 6: The incinerator plume footprint should be shown in the HRA-STM as potentially impacted.

20. CDPH Comment 5, on page 12 of 20 in responses: This statement is misleading. While Site 12 was subject to extensive subsurface soil characterization as reported in Shaw 2004, the characterization was for Chemicals of Concern. Only a few samples were analyzed for radionuclides. Please amend the response to indicate the number of radiological samples taken and the utility of those samples.

20b. CDPH Comment 5, on page 12 of 20 in responses: Please list in table form the sites where debris, odor or soil discoloration was observed and add them as potentially impacted.

20c. CDPH Comment 5, on page 12 of 20 in responses: Figure 2 does not appear to identify those SWDA's that have been identified as radiologically impacted in the legend, nor does it show the 50 foot step out from the existing SWDA footprint perimeters.

21. CDPH Comment 11, on page 14 of 20 in responses: This indicates that the Building 233 sewer line contamination is not expected to extend beyond the gravity portion of the sewer systems. Please explain the basis for this statement.

Specific Responses to CDPH Specific Comments:

22. CDPH Comment 15, on page 16 of 20 responses: Please refine the time period and potential locations of temporary storage areas for the 200 drums of radiological waste originating from Building 233. The DON states that all drums were eventually loaded on the USS Independence for disposal.

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23. CDPH Comment 16, on page 16 of 20 in responses: Will additional information about waste disposal from USS Pandemonium Site 2 be included in the HRA-STM? If this site is now considered potentially impacted, what actions are needed for the waste previously shipped to Altamont and Buttonwillow?

23b. Note that based on the original HRA, the description of uses of Cs-137 need to be further developed so it is clear that only Cs-137 sealed sources were used, if that is indeed the case.